Cookson/Foseco: merger of foundry industry suppliers reviewed in parallel by the EU and the US

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On 4 March the Commission approved the proposed acquisition of Foseco by Cookson (2). Both companies are based in the UK. The Commission’s decision was conditional on the divestiture of Foseco’s isostatically pressed products (‘IPPs’) business and Cookson’s foam filter business.

Both Cookson and Foseco are suppliers of refractories to the iron and steel industry and produce consumable products, in particular filters for use in the foundry industries. While Cookson, through its wholly-owned subsidiary Vesuvius, is mainly active in the refractories business, Foseco is to a large extent focused on the foundry segment.

Refractories are non-metallic ceramics which can resist temperatures of up to 1800°C and are primarily used as a heat buffer or lining in industrial devices such as furnaces, kilns and ovens. They may serve as a protection for the outer shell of the furnace, but can also be used to control the flow of molten metal.

Foundries produce metal castings from either ferrous or non-ferrous alloys. The main manufacturing process used in the industry is traditional casting, where molten metal is introduced into a sand or metal mould and allowed to solidify within the mould. For certain castings where a high degree of finish is required a more specialised process — investment casting — is used. Here refractory shell moulds are used to define the outer shape and surface of the casting and a removable wax or foam core defines the inner shape and surface.

The Commission examined the competitive effects of the proposed merger on refractories and filters, where both parties are active.

Refractories can be classified according to shape and raw material. Unshaped refractories include all monolithic (powder-based) products used for linings and are usually processed and applied in the equipment itself. Shaped refractories are supplied in a form which is immediately useable by the customer (bricks, ladles, tubes) and generally have a denser structure than unshaped products. Refractories made from magnesium oxide or calcium oxide are classified as basic, whereas products based on bauxite and alusite or silica are known as non-basic. On the basis of this categorisation refractories could be sub-divided into four segments: shaped basic refractories, shaped non-basic refractories, unshaped basic refractories, and unshaped non-basic refractories. In addition, within the segment of shaped non-basic refractories a further subdivision is possible into isostatically pressed products (‘IPPs’) and other products such as bricks. IPPs are refractories used in the continuous casting of steel and are produced using a special (‘isostatic’) pressing and manufacturing process yielding certain qualities as to homogeneity and thermal shock resistance. The manufacturing process involves the use of a special technology. The Commission identified three markets where the parties’ activities overlap: (i) IPPs; (ii) unshaped non-basic refractories, and (iii) unshaped basic refractories. The geographic markets were considered to be EEA-wide.

Filters are a type of technical ceramics. Two main types are used: porous foam-like structures with interconnected pores that vary in direction or cross-section (‘foam filters’), and cellular or honeycomb structures with cells of various sizes and consistent cross-sections (‘strainers’). Filters can also be differentiated according to their chemical composition. Filters are largely tailored to the metals and the casting operations. From a supply-side point of view, different technical skills are required for producing strainers or foam filters. Within foam filters products have to be differentiated according to their application. In steel casting only Zirconia foam filters can be used. In iron casting only silicon carbide (‘SiC’) foam filters are used. Technically it would be possible to use Zirconia foam filters too. But as Zirconia foam filters are 5-10 times more expensive than SiC foam filters no foundry can afford to switch to this alternative. The use of alumina foam filters is limited to non-ferrous applications. Supply-side substitutability is also limited. Alumina foam filters on the one hand and Zirconia filters/SiC filters on the other hand are manufactured in different production facilities. Manufacturers consider it difficult to switch production, in particular to start the production of Zirconia foam filters. Zirconia

(1) Directorate-General for Competition, unit E-4. The content of this article does not necessarily reflect the official position of the European Commission. Responsibility for the information and views expressed lies entirely with the authors.

(2) Case COMP/M.4961 http://ec.europa.eu/competition/mergers/cases/index/m99.html#m_4961.
Merger control

filters are more sophisticated than SiC filters and require special know-how and experience. Typically producers enter the more basic SiC foam filter segment and only after several years of experience consider producing Zirconia foam filters. The Commission therefore drew the conclusion that alumina foam filters on the one hand and SiC and Zirconia filters on the other hand constitute different product markets. The question whether Zirconia and SiC foam filters should be considered as distinct product markets could finally be left open as even under a broad market definition the merger raised serious doubts as to its compatibility with the common market. The geographic market definition was also left open as even under the assumption of a world-wide market the transaction was likely to have negative effects on competition in the relevant filter markets.

Competition concerns were identified in two markets: (i) IPPs and (ii) SiC/Zirconia foam filters.

As regards IPPs Cookson would have become by far the market leader after the merger, and the limited number of remaining competitors would not have been able to counter the new entity’s market power. In addition to the large market shares the market investigation indicated that the products of Cookson and Foseco are marketed under brands which are widely recognised as the industry leaders, and their products are considered as close substitutes in terms of quality and specifications. The merger would have eliminated the closest competitor of the current market leader Cookson.

Concerning SiC and Zirconia filters, an area where Foseco has a strong market position, the merger would have combined the existing market leader and its closest competitor in terms of quality, service and innovation. A number of customers who source filters from both customers pre-merger would have lost an alternative supplier. Furthermore, there are significant hurdles regarding the switching of filter suppliers. A switch would require testing and adjustment of the foundry process, which would take up to half a year or longer. In typical small foundries test runs would disrupt production and therefore lead to significant costs. There would also be the high risk of producing scrap for several production cycles owing to adjustment problems, which further increased the cost risk. At the same time, the filter price is only a fairly small proportion of the overall production cost. Instead of switching to an alternative supplier with unknown quality and limited technical support, thereby risking potential scrap and a loss of reputation and customers, customers would rather accept a price increase.

To address these concerns Cookson made the commitment to divest its filter business and, with the exception of a small plant in Asia, Foseco's IPP business. The commitments entirely remove the overlaps in the parties' activities in both areas of concern. After market testing these commitments, the Commission concluded that they would be suitable to eliminate its concerns.

The transaction was reviewed by the US Department of Justice (DoJ) in parallel. Both the DoJ and the Commission had close contacts during their investigation and, on the basis of a waiver provided by the parties, shared their information. The DoJ required the divestiture of Foseco's entire US IPP (or carbon bonded ceramic — CBC) business. The cooperation continues for the implementation of the remedies.